

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

<b>In the Matter of</b>	)	
	)	
<b>Petition for Forbearance from E911 Accuracy Standards Imposed on Tier III Carriers</b>	)	<b>WT Docket No. 02-377</b>
	)	

**To: The Wireless Telecommunications Bureau**

**COMMENTS**

Rural Cellular Corporation and its affiliates (collectively “Rural Cellular Corporation” or “RCC”)<sup>1</sup>, by its attorneys, respectfully submit these comments in response to the invitation of the Wireless Telecommunications Bureau (“the Bureau”)<sup>2</sup> to comment on the Petition for Forbearance from E911 Accuracy Standards Imposed on Tier III Carriers (“Petition”) filed with the Federal Communications Commission (“FCC” or “Commission”) by the Tier III Coalition (“TierIIICo”) on November 20, 2002. The Petition seeks temporary relief for Tier III carriers from compliance with the FCC’s wireless enhanced 911 (“E911”) Phase II location accuracy standards. Tier III carriers are defined as non-nationwide carriers that had 500,000 or fewer subscribers as of year-end 2001.

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1 The following companies which are wholly-owned subsidiaries of Rural Cellular Corporation and are authorized by the FCC to provide broadband Commercial Mobile Radio Service: RCC Atlantic, Inc.; RCC Holdings, Inc.; RCC Minnesota, Inc.; Wireless Alliance, LLC and TLA Spectrum, L.L.C.

2 *Wireless Telecommunications Bureau Seeks Public Comment on Petition for Forbearance from E911 Accuracy Standards Imposed on Tier III Carriers*, Public Notice, WT Docket No. 02-377, DA 02-3470, released December 17, 2002.

3 *Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102 (Order to Stay), 2002 FCC LEXIS 3638, FCC 02-210 (2002) (“*Phase II Stay Order*”).

## **I. Introduction**

Rural Cellular Corporation is a carrier that provides Commercial Mobile Radio Services (“CMRS”) almost exclusively in rural areas. RCC is among the Tier II carriers whose implementation deadline for Phase II service was extended by FCC action in the *Phase II Stay Order*.<sup>4</sup> The FCC alleviated scheduling concerns for implementation of Phase II services by CMRS carriers according to carriers’ numbers of subscribers. Achieving the location accuracy requirements imposed by Sections 20.18(h) of the Commission’s Rules, however, presents the very same challenges to both Tier II and Tier III carriers in rural markets. Carrier size, number of subscribers and bargaining power do not affect a carrier’s ability to overcome the technical obstacles to achieving accuracy in rural areas. While RCC fully supports the grant of relief sought by the Tier III Co Petition, RCC urges the FCC to grant the same relief, through the same period ending December 31, 2005, to Tier II carriers serving Rural Service Areas (“RSAs”).

There is nothing about being a larger sized carrier that causes an inadequate technology to magically begin to work in rural areas. Like Tier III carriers, Tier II carriers will attempt to deploy the best available E911 Phase II technologies on schedule upon request by the local Public Safety Answering Point (“PSAP”). However, in RSAs the FCC should elect to forbear from enforcing the precise accuracy levels presently set forth in Section 20.18(h).<sup>5</sup> Forbearance will permit safety to be enhanced and experience to be gained in rural Phase II deployment. By exercising forbearance the FCC can recognize and efficiently address the same factual circumstances applicable to all rural carriers. The agency will thus be relieved from allocating resources to process myriad

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<sup>4</sup> Tier II carriers are defined as non-nationwide carriers that had over 500,000 subscribers as of the end of 2001. *Phase II Stay Order*, at ¶22.

<sup>5</sup> FCC Rule Section 20.18(h) presently sets forth a standard for Phase II location accuracy and reliability of 100 meters for 67 percent of calls and 300 meters for 95 percent of calls for carriers deploying network-based technologies and 50 meters for 67 percent of calls and 150 meters for 95 percent of calls for carriers deploying handset-based technologies. 47 C.F.R. §20.18(h).

individualized requests for waiver and extensions of time to comply with the location accuracy standard.

## **II. RCC Is Experiencing the Accuracy Obstacles Faced by All Rural Carriers**

As a CMRS provider in rural and small city markets, RCC is challenged to satisfy the Phase II E911 location accuracy requirements. RCC's cell configuration provides excellent coverage to small population centers and highways, but the cells are not densely spaced and often follow the ribbon pattern of the local highway system. There are many places in RCC's service area, particularly in areas divided by mountain ridges and canyons, where no two cells cover the same spot. As a result, RCC's cellular layout does not accommodate existing triangulation techniques for network-based location of the exact physical position of the emergency caller. Nor does RCC serve areas of dense cell configuration useful to increase the average accuracy for the system overall, as is provided for in the guidelines of Office of Engineering and Technology Bulletin 71 ("OET 71").

Adding base stations purely to improve location accuracy is uneconomical and does nothing to enhance system revenues. Even if new cells were justifiable, RCC finds construction to be impractical in the many historical and environmentally sensitive areas of rural America. Cumbersome zoning procedures and restrictions encumber both new construction and additions to existing tower sites. Obtaining necessary power and telephone company facilities at new cell sites is becoming more expensive and taking longer and longer amounts of time to accomplish.

Despite the obstacles RCC will go forward with Phase II services when so requested by PSAPs. Caller location will be determined to the greatest possible degree of accuracy utilizing Time Difference of Arrival ("TDOA") and Angle of Arrival ("AOA") technology within RCC's network-based solution using RCC's existing base station sites. Aggressive deployment of AOA antennas

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is critical to accuracy, but they present distinct challenges to the Phase II implementation process. In fact, they are becoming a less realistic approach to the accuracy solution because of the size, number and weight of equipment they require. Installation of the AOA panels alone severely reduces the amount of free space on a tower, thus reducing opportunities for co-location and, hence, local wireless competition. Installation of AOA panels also presents to the carrier the need for zoning, leasing and state and local environmental approvals. Furthermore, because of the weight of the panels and the corresponding cables, the AOA antennas strain the structural integrity of existing towers. Requests for mounting space are often refused by tower owners. Some towers can be modified to augment the structural support necessary for AOA panels, but only at great expense, not easily recouped by the tower owner.

Despite its best efforts and committed investment to E911 Phase II implementation, RCC is not confident that the required accuracy levels can be achieved in RCC's rural markets.<sup>6</sup> As discussed in the Report on Technical and Operational Issues Impacting the Provision of Wireless Enhanced 911 Services by Dale N. Hatfield ("Hatfield Report"), in Docket WT 02-46, the location techniques invented to date are simply not reliable in rural areas. The FCC's stringent accuracy requirements are therefore very difficult for rural carriers to meet.

Adopting a handset-based solution for Phase II E911 services is not a solution available to RCC. Almost all of RCC's systems use the TDMA digital standard for which there are no commercially available handsets that would allow RCC to achieve the location accuracy levels mandated by FCC Rules. The few available units are not guaranteed to deliver accurate position information, and are inherently handicapped in the dense foliage and rugged terrain common to rural areas. Even with improvement of the accuracy of handsets, implementation of a handset-based

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<sup>6</sup> RCC has examined the results of predictive studies that indicate compliance with location accuracy standards can be achieved, but RCC has concerns that the predictions will not be borne out in real-world

solution for E911 Phase II in rural markets is economically impractical in rural markets such as RCC's, where churn is low and subscribers have little desire to trade in their handset units. It is also wasteful for RCC to invest in any E911 solution useful only with TDMA, an unsupported platform.

With either a handset- or network-based solution deployed, RCC finds that the percentage-based averaging techniques offered in OET 71 would not help RCC achieve the required accuracy levels. Averaging is of no benefit to carriers who do not serve a metropolitan area that can be used to improve the carrier's overall average. Even if a carrier has the advantage of such an area, there is an ambiguity identified in the Hatfield Report as to the geographic area over which accuracy measurement areas can be averaged, *i.e.*, PSAP service area or carrier service area. The Hatfield report also finds uncertainty over the interaction between delay in processing time and accuracy in obtaining position fixes.<sup>7</sup> Too much delay can cause the call to be timed-out or to be terminated by the caller. Too little delay reduces the number of queries used to achieve accurate caller position.

The FCC's record demonstrates that RCC and similarly situated carriers have no viable means by which to achieve imminently in rural service areas the required accuracy levels of Section 20.18(h). No technical solution is available to RCC that offers assurance that its Phase II location services will comply with the rule. Therefore RCC supports TierIIICo's proposal for forbearance. It is a sensible approach to problem that is shared by all rural carriers and should be applied in all rural market areas, most particularly in RSAs served by Tier II carriers.

### **III. FCC Forbearance Is Warranted by Existing Circumstances**

As a remedy to the technical obstacles to implementation of Phase II services, the Hatfield Report encourages the Commission to provide additional guidance to be incorporated into a new

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deployment.

<sup>7</sup> *Hatfield Report*, Section 3.6.2 - Findings.

voluntary, industry-wide testing and certification program.<sup>8</sup> Indeed, development of accuracy standards for rural market areas is an ideal goal, attainable with time and experience. For now, an FCC policy of temporary forbearance from enforcement of accuracy standards in rural markets would be conducive to achievement of the accuracy standards or development of new standards. Because the existing requirements are scientifically unattainable in real world conditions in rural areas, an administrative remedy is warranted.

Carriers such as RCC should not be excluded from compliance because of the rural nature of their service areas. The FCC should take the opportunity presented by this proceeding to allow rural carriers to proceed with Phase II implementation without fear of forfeiture penalties for failure to either reach the accuracy requirements or obtain individual FCC approval for delay of implementation. The E911 Phase II location accuracy requirements are presently beyond reach outside of Metropolitan Service Areas. The FCC has both reason and means to afford measured relief in light of the special circumstances.

Under Section 10 of the Communications Act, added by the 1996 Telecommunications Act, the Commission must forbear from applying any regulation or provision of the Act to a telecommunications carrier if it determines that: (1) enforcement is not necessary to ensure that charges, practices, classifications and services are just and reasonable, and not unjustly or unreasonably discriminatory; (2) enforcement is not necessary for the protection of consumers, and (3) forbearance is consistent with the public interest.<sup>9</sup> In making the determination that forbearance is consistent with the public interest, the statute instructs the Commission to consider whether forbearance from enforcing the provision or regulation will promote competitive market conditions, including the extent to which such forbearance will enhance competition among providers of

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<sup>8</sup> *Hatfield Report*, Section 3.6.3 - Recommendations.

<sup>9</sup> Telecommunications Act of 1996, Pub.L.No. 104-104, 110 Stat. 56, Sect. 10, *codified* at 47 U.S.C. §160(a).

telecommunications services.<sup>10</sup>

All three prongs of the Section 10 forbearance standard are met. Rates and charges are not an element of the E911 implementation schedule. In fact, FCC forbearance will help to keep subscriber rates down. Consumers will be protected by receiving the best Phase II location services that technology will allow, and the public interest will be served by installation of Phase II soon, without the delay of regulatory proceedings occasioned by individual waiver requests. Therefore the Commission should forbear from enforcing Section 20.18(h) of its rules in rural areas.

Forbearance will promote competitive market conditions and will enhance competition among wireless telecommunications providers. Rather than invest in inadequate accuracy technologies and pay fines for noncompliance, carriers can instead deploy funds to expand coverage, improve service offerings, update infrastructure and better compete in the marketplace. Importantly, carriers will be free to vigorously promote Phase II location services as a feature that will get better over time, not withheld from the market until perfected to regulatory standard. For RCC, the alternative to FCC forbearance is to seek FCC authority to delay implementation of RCC's Phase II location services, due to uncertainty that the company can meet the accuracy requirements. Consequently, RCC would be precluded from competing for subscribers by offering E911 Phase II services. If the service is not deployed it cannot be offered; if it is not offered it cannot be advertised. RCC would rather commence the offering and begin to make the public aware of the advantages of location services. RCC would prefer to get started sooner, with whatever accuracy is achievable upon best efforts, rather than fall behind in its own learning curve of implementing and fine tuning the technology.

Under the proposed forbearance, RCC and other carriers will continue to be responsible for timely implementation of Phase II services. The carriers can be required to comply with interim

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<sup>10</sup> 47 U.S.C. §160(b).

reporting procedures, as suggested in TierIII Co's Petition.<sup>11</sup> RCC proposes as an alternative that the Commission allow the industry to develop its own methods for monitoring the development of positioning technology. Carriers can independently share information and resources with each other and with PSAPs. Together they can advance the goal of achieving Section 20.18(h) accuracy, or developing for FCC consideration a separate rural standard for accuracy. RCC encourages the Commission to adopt forbearance, **but to refrain from adopting reporting procedures that would sap carriers' resources and cause them to burden PSAPs with repeated requests for information that will enable the carrier to file its report with the FCC.** Onerous reporting requirements should not be used to punish the stakeholders for a technology failure for which they are not at fault.

#### **IV. E911 Phase II Implementation Will Proceed Uninterrupted Under Forbearance**

The public interest will be served by a policy of forbearance by allowing carriers a period of time to pursue rural accuracy levels that can be achieved nationally. The existing accuracy requirements are not needed to protect public safety in rural areas, where callers can be located using relaxed accuracy standards because rural areas by nature are less densely occupied, making it easier to locate a person in need. Permitting relief from the accuracy standards in rural areas will promote efficient use of scarce public and private resources. Carriers and PSAPs will use the time to develop uniform accuracy standards for rural areas that are predictable and reliable. Public safety personnel will be able to locate 911 callers as quickly as possible using a new technology that is put to use with the least amount of regulatory delay or disruption to their daily duties.

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<sup>11</sup> TierIII Co proposes that carriers subject to the FCC's forbearance would submit quarterly reports of E911 location activity and of predicted accuracy, including updated maps for the service area, as well as data on the distance between the provided location and the actual location of the 911 caller (and the time required by emergency personnel to locate the caller, if available). Petition, p. 19, p. 28.



Forbearance will also eliminate a significant and unnecessary expenditure of carriers' and Commission resources. Carriers would have to devote much time and resources to file individual waiver requests, and Commission staff would be required to process them case-by-case. Because of the commonality of concerns of carriers requiring accuracy relief, forbearance is the remedy that will most efficiently address the needs of the rural industry. At the same time it will speed initiation of Phase II services in rural markets and advance public awareness of Phase II benefits. RCC looks forward to participating in E911 Phase II on the same pace as the rest of the CMRS industry.

## **V. Conclusion**

Sufficient justification exists for the FCC to forbear from enforcing Section 20.18(h) requirements as they apply to CMRS operations in Rural Services Areas. Forbearance will enhance competition and serve the public interest. There is no reason to distinguish between Tier II and Tier III carriers, since both face the same technical challenges to achieving E911 Phase II location accuracy in rural areas. RCC urges the FCC to adopt a period of forbearance through the proposed term ending December 31, 2005. During that time the FCC should consider forging a separate set accuracy standards to be used by rural CMRS service providers. RCC therefore supports TierIII Co's

Petition, but encourages extension of FCC forbearance to Tier II carriers in the RSAs without burdensome reporting requirements so that rural carriers such as RCC can begin to offer and develop location services in their rural markets.

Respectfully submitted,

**RURAL CELLULAR CORPORATION**

/s/ Pamela L. Gist

David L. Nace

Pamela L. Gist

Its Attorneys

Lukas, Nace, Gutierrez & Sachs, Chartered  
1111 19th Street, N.W.  
Suite 1200  
Washington, D.C. 20036  
(202) 857-3500

January 24, 2003

## CERTIFICATE OF SERVICE

I, Loren Costantino, an employee in the law offices of Lukas, Nace, Gutierrez & Sachs, Chartered, do hereby certify that I have on this 24<sup>th</sup> day of January, 2003, sent by hand-delivery, a copy of the foregoing COMMENTS to the following:

Thomas J. Sugrue, Chief  
Wireless Telecommunications Bureau  
Federal Communications Commission  
445 12th Street, S.W., Room 3-C252  
Washington, D.C. 20554

Barry J. Ohlson, Chief  
Policy Division  
Wireless Telecommunications Bureau  
Federal Communications Commission  
445 12th Street, S.W., Room 3-C124  
Washington, D.C. 20554

Eugenie Barton  
Policy Division  
Wireless Telecommunications Bureau  
Federal Communications Commission  
445 12th Street, S.W., Room 3-C124  
Washington, D.C. 20554

\* Qualex International  
Portals II  
445 12th Street, S.W., CY-B402  
Washington, D.C. 20554  
qualexint@aol.com

/s/ Loren Costantino

Loren Costantino

\*via e-mail